What is claimed is:

[c1] 1.A method for interfacing a data link protocol engine and a physical layer component, comprising the steps of:

sending a parameter setting message to the physical layer component; sending a handshaking tone or pattern detection request message to the physical layer component;

receiving a handshaking tone or pattern detection indicate message from the physical layer component indicating that a recognized tone or bit pattern has been detected:

sending a signal request message to the physical layer component indicating that a handshaking message is to be transmitted; and receiving a handshaking signal confirmation message from the physical layer component indicating that the requested signal has been transmitted for the maximum number of symbols.

- 2. The method of claim 2, further comprising the step of receiving a read indicate message from the physical layer component indicating various types of data messages or error indications.
- 3. The method of claim 1, wherein the parameter setting message includes information indicating: 1) the mode of the physical layer; 2) a fill character to be inserted in framing mode; and 3) a fill count indicating the number of fill characters to be sent before each frame.
- [c4] 4. The method of claim 3, further comprising the step of determining whether the mode is a framing or nonframing mode.
- [c5] 5.The method of claim 1, wherein the detection request message includes a parameter indicative of the of the tones or patterns to be detected.
- [c6] 6. The method of claim 5, wherein the parameter indicative of the of the tones or patterns to be detected implements a bit map scheme listing recognized tones.
- [c7] 7. The method of claim 1, wherein the signal request message includes a parameter indicative of the type of handshaking message to be transmitted.

[c2]

[c3]

[c10]

- [c8] 8.The method of claim 1, wherein the signal request message includes a parameter indicative of the duration of the handshaking message to be transmitted.
- [c9] 9.A system for interfacing a data link protocol engine and a physical layer component, comprising:

 means for sending a parameter setting message to the physical layer component;

means for sending a handshaking tone or pattern detection request message to the physical layer component;

means for receiving a handshaking tone or pattern detection indicate message from the physical layer component indicating that a recognized tone or bit pattern has been detected;

means for sending a signal request message to the physical layer component indicating that a handshaking message is to be transmitted; and means for receiving a handshaking signal confirmation message from the physical layer component indicating that the requested signal has been transmitted for the maximum number of symbols.

- 10. The system of claim 9, further comprising means for receiving a read indicate message from the physical layer component indicating various types of data messages or error indications.
- [c11] 11. The system of claim 9, wherein the parameter setting message includes information indicating: 1) the mode of the physical layer; 2) a fill character to be inserted in framing mode; and 3) a fill count indicating the number of fill characters to be sent before each frame.
- [c12] 12. The system of claim 11, further comprising means for determining whether the mode is a framing or nonframing mode.
- [c13] 13. The system of claim 9, wherein the detection request message includes a parameter indicative of the of the tones or patterns to be detected.
- [c14] 14. The system of claim 13, wherein the parameter indicative of the of the tones or patterns to be detected implements a bit map scheme listing recognized

and

- [c15] 15. The system of claim 9, wherein the signal request message includes a parameter indicative of the type of handshaking message to be transmitted.
- [c16] 16.The system of claim 9, wherein the signal request message includes a parameter indicative of the duration of the handshaking message to be transmitted.
- [c17] 17.A computer readable medium incorporating one or more instructions for interfacing a data link protocol engine and a physical layer component, the instructions comprising:

 one or more instructions for sending a parameter setting message to the physical layer component;

 one or more instructions for sending a handshaking tone or pattern detection request message to the physical layer component;

 one or more instructions for receiving a handshaking tone or pattern detection indicate message from the physical layer component indicating that a recognized tone or bit pattern has been detected;

 one or more instructions for sending a signal request message to the physical layer component indicating that a handshaking message is to be transmitted;

one or more instructions for receiving a handshaking signal confirmation message from the physical layer component indicating that the requested signal has been transmitted for the maximum number of symbols.

- [c18] 18. The computer readable medium of claim 17, the instructions further comprising one or more instructions for receiving a read indicate message from the physical layer component indicating various types of data messages or error indications.
- [c19] 19.The computer readable medium of claim 17, wherein the parameter setting message includes information indicating: 1) the mode of the physical layer; 2) a fill character to be inserted in framing mode; and 3) a fill count indicating the number of fill characters to be sent before each frame.

- [c20] 20.The computer readable medium of claim 19, the instructions further comprising one or more instructions for determining whether the mode is a framing or nonframing mode.
- [c21] 21.The computer readable medium of claim 17, wherein the detection request message includes a parameter indicative of the of the tones or patterns to be detected.
- [c22] 22.The computer readable medium of claim 21, wherein the parameter indicative of the of the tones or patterns to be detected implements a bit map scheme listing recognized tones.
- [c23] 23.The computer readable medium of claim 17, wherein the signal request message includes a parameter indicative of the type of handshaking message to be transmitted.
- [c24] 24.The computer readable medium of claim 17, wherein the signal request message includes a parameter indicative of the duration of the handshaking message to be transmitted.